

AMENDMENTS TO THE DRAWINGS

The attached "Replacement Sheet" of drawings includes changes to Figure 1.

The attached "Replacement Sheet," which includes Figure 1, replaces the original sheet including Figure 1.

Attachment: Replacement Sheet

REMARKS

Claims 2, 3, 7-9, 12 and 20 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

DRAWINGS

The drawings stand objected to for certain informalities. Applicant attaches revised drawings for the Examiner's approval. In the "Replacement Sheet" Figure 1 is designated with the legend "Prior Art". Accordingly, this objection should be moot.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-3, 5-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kiyota (U.S. Pat. No. 5,548,679) in view of DE 3800476 and Komiya (U.S. Pat. No. 4,625,156). This rejection is respectfully traversed. Please note that the disposition of Claim 4 is not specifically addressed in the office action.

Claim 2 is amended herein to recite the subject matter of original claims 1 and 2. Claim 1 is cancelled. As amended, claim 2 calls for a rotation control circuit of a motor comprising a PWM control circuit, a rotational speed sensor, a reference signal generation circuit, a phase comparing circuit, a divider for dividing the detected rotational speed signal of said motor; and a rotation command means of said motor. The phase difference between the signal from the divider and the signal based on the reference signal is sought with the phase comparing unit, and this phase difference signal is supplied to the PWM control circuit. The command means alters the division

ratio of the divider in accordance with the contents of the rotational speed alteration request to the motor.

Claim 3 depends from claim 1.

Claim 4 is cancelled.

Claims 7 is amended herein to recite the subject matter of original claims 5, 6 and 7. Claims 5 and 6 are cancelled. As amended, claim 7 calls for a vehicle having a vehicle body, a drive wheel, an auxiliary wheel, and a first drive source and in which the first drive source rotates the drive wheel to make the vehicle run. The vehicle comprises a position sensor which outputs a frequency signal as a detection signal, drive control means, and posture control means which has a second drive source for moving the position of the drive wheel in relation to the vehicle body, a third drive source for making the auxiliary wheel float from the road surface, and a control circuit for controlling the second drive source in accordance with the frequency signal from the position sensor and the drive control means. The control circuit has a reference signal generation circuit, a phase comparing circuit, a divider for dividing the frequency signal, and a PWM control circuit. The phase difference between the signal from the divider and the signal based on the reference signal is compared with the phase comparing unit. This phase difference signal is supplied to the PWM control circuit, and the output of the PWM control circuit is supplied to the second drive source.

Claims 8 and 9 depend from claim 7.

Claims 10 and 11 are cancelled.

Claim 12 depends from claim 2.

Claims 13-19 are cancelled.

In contrast to the claimed subject matter as described above, none of the references of record employ a "variable" divider. As such, none of the references alter the division ratio of the divider in accordance with the contents of the rotational speed alteration request to the motor. More particularly, in Kiyota, the start-up of the motor is carried out by a circuit which is not shown. In Komiya, the start-up of the motor is made by a frequency comparator. Thus, even if the proposed combination were made, the resultant combination of teachings would not yield the claimed invention.

That is, the claimed invention has a variable divider. The variable divider is able to carry out the start-up of the motor and control the rotation speed of the motor in a wide range. This is beneficial for the computer speed control system.

It should also be noted that although DE 3800476 discloses a posture control for the vehicle body, it does not disclose a definite circuit of the automatic control circuit 13, 15 and 31. In contrast, the claimed invention has a PLL control circuit in the automatic control circuit. This is beneficial for the computer posture control system.

Thus it can be appreciated that the combination of references does not render the subject matter of independent claims 2 and 7 obvious. The dependent claims are non-obvious for at least the same reasons. Accordingly, reconsideration and withdrawal of the outstanding rejections is respectfully requested.

NEW CLAIM

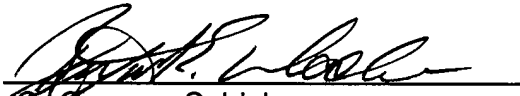
New claim 20 is added herein. Dependent claim 20 further defines the detection signal recited in independent claim 7. No new matter is added.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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